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EXAMINER	
GATES, ERIC ANDREW	

ART UNIT	PAPER NUMBER
3722	

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Please find below and/or attached an Office communication concerning this application or proceeding.

C

Office Action Summary	**Application No.** 10/680,146	**Applicant(s)** BAI, LI KUN	
	Examiner Eric A. Gates	**Art Unit** 3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *9 November 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This office action is in response to Applicant's Amendment filed on 9 November 2005.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on 10/11/2002. It is noted, however, that applicant has not filed a certified copy of the 2,407.908 application as required by 35 U.S.C. 119(b).

Specification

3. The disclosure is objected to because of the following informalities:

a. Under Amendments to the Specification, the paragraph identified as [0037] is actually paragraph [0085]. Both paragraphs should be modified to be consistent.

Appropriate correction is required.

4. The amendment filed 9 November 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The modification to paragraph [0048] states that each carrier 20 rotates about the associated pin 301 to

define an offset pivot axis across or perpendicular to the elongate drive shaft 4. While it is true that each carrier 80 rotates about pivot connection 82, nothing in the original disclosure teaches that carrier 20 is capable of rotating around the associated pin 301. In fact, the original disclosure states that each carrier 20 is fixed by pins 301 to the receiving collar 10.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 recites the limitation "said implement receiving carrier" in lines 16-17. Claim 6 recites the limitation “said implement receiving carrier” in lines 2, 4-5, and 7. There is insufficient antecedent basis for this limitation in the claims.

8. Claim 1 recites the limitation "said receiving collar" in line 15. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 6 recites the limitation "said carrier" in line 6. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 7 recites the limitation "said implement receiving" in line 3. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 11 recites the limitations "each carrier" and “said collar” in line 9. There is insufficient antecedent basis for these limitations in the claim.

12. Claim 11 recites the limitation "each implement receiving carrier" in lines 14, 16 and 19-20. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Cowley (U.S. Patent 431,107).

4. Per claim 1, Cowley discloses a drill accessory for receipt in a drill chuck, said drill accessory comprising an elongate drive shaft 1 having an implement receiving socket 7 at one end thereof and a drive end 1 for engaging a drill chuck at an opposite end (see Figure 4), said tool further including an implement receiving collar 3 about an intermediate portion of said drive shaft 1 which allows rotation of said drive shaft 1 without rotation of said implement receiving collar 3 (see page 1, lines 64-66), said implement receiving collar 3 having a plurality of implement receiving recesses 5 with each implement receiving recess 5 temporarily maintaining an implement 9 in a storage position adjacent an in use position where an implement 9 is received in said implement receiving socket 7 of said drive shaft 1, each implement receiving recess 5 locating an

implement 9 received therein to one side of said drive shaft 1 and partially receiving each implement 9 within said receiving collar 3 (when in the use position, implement 9 is within the area between the extensions 4 of receiving collar 3); said receiving collar 3 slidably (receiving collar 3 is rotationally slidable, see page 1, lines 64-66) and pivotally supporting each implement receiving carrier 7 with each implement receiving carrier 7 releasably supporting one of said implements 9 and accommodating sliding (sliding simultaneously with receiving collar 3) and pivoting movement of said implement receiving carrier 7 in moving the associated implement 9 from said storage position to said in use position.

5. Per claim 2, Cowley discloses each implement receiving recess 5 shaped to releasably maintain an implement 9 and allow hand removal of said implement 9 from said collar 3.

6. Per claim 3, Cowley discloses a plurality of implements 9, each of which is receivable in any of said implement receiving recesses 5.

7. Per claim 6, Cowley discloses each implement receiving carrier 7 in said storage position locates an implement 9 received therein to one side of said drive shaft 1 and each implement receiving carrier 7 in said in use position allows drive shaft rotation of an implement 9 received in said carrier without rotation of said implement receiving carrier.

8. Per claim 7, Cowley discloses each implement receiving carrier 5 to be slidably (slidable simultaneously with implement receiving collar 3) and pivotally secured within

a securing slot of said implement receiving collar 3 (slot defined as area between adjacent implement receiving carriers 5).

9. Per claim 8, Cowley discloses a plurality of implements 9, each of which is receivable in any of said implement receiving carriers 5.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley in view of Holland (U.S. Patent 6,053,675).

11. Per claim 4, Cowley discloses the invention substantially as claimed, except Cowley does not disclose each implement 9 to have a recessed groove intermediate the length of the implement for cooperating with a locking spring associated with said receiving socket 7 of said drive shaft 1. Holland teaches an implement 14 with a recessed intermediate groove 16 for the purpose of cooperation with a locking spring 60. Therefore it would have been obvious to one having ordinary skill in the art of power drills to combine the modified drill accessory of Cowley with the grooved implement and locking spring of Holland in order to have implements that are easily inserted into and removed from the drill accessory.

12. Per claim 5, the modified drill accessory of Cowley discloses the invention as claimed, as Cowley further discloses a non-rotating implement receiving collar that may be used as an outer hand grip for the purpose of facilitating positioning said drive shaft during rotation thereof.

13. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley in view of Carter (U.S. Patent 2,679,770).

14. Per claim 9, Cowley discloses the invention substantially as claimed, except Cowley does not disclose each implement includes a spring loaded cam means for releasable securement in any of said implement receiving carriers.

15. Carter teaches the use of a spring 26 for the purpose of providing releasable securement in any of said implement receiving carriers 12, 13, 14, 15. Therefore it would have been obvious to one having ordinary skill in the art of power drills to combine the drill accessory of Cowley with the spring of Carter in order to have implements that are more easily removed from the drill accessory.

16. Per claim 10, the modified drill accessory of Cowley discloses the invention as claimed, as Cowley further discloses each implement 9 received in any of said implement receiving carriers 5 is slidably displaceable within the implement receiving carrier 5.

17. Per claim 11, Cowley discloses a tool for receipt in a drill chuck, said tool comprising an elongate drive shaft 1 having an implement receiving socket 7 at one end thereof and a drive end 1 for engaging a drill chuck at an opposite end (see Figure 4), said tool further including an implement receiving collar 3 about an intermediate portion

of said drive shaft 1 which allows rotation of said drive shaft 1 without rotation of said implement receiving collar 3 (see page 1, lines 64-66), said implement receiving collar 3 having at least 3 implement carriers 5 with each carrier 5 at least pivotally mounted to said collar 3 about a pivot axis offset and perpendicular to said elongate drive shaft 1 for movement between a storage position to an in use position which aligns an implement 9 received in said implement carrier 5 with said implement receiving socket 7 of said drive shaft 1 for receipt therein, each implement receiving carrier 5 in said storage position locating an implement 9 received therein to one side of said drive shaft 1 and each implement receiving carrier 5 in said in use position allowing rotation of an implement 9 received therein and in engagement with said drive shaft socket 7. Cowley does not disclose rotation of said drive shaft 1 without rotation of said implement receiving carrier 5.

18. Carter teaches a tool selective device 1 which houses a plurality of implements 18. Said tool selective device 1 comprises an implement receiving collar 9 with a plurality of implement receiving carriers 12, 13, 14, 15, for the purpose of providing implements 18 for rotational use by drive shaft 11 without causing the rotation of the implement receiving collar 9 or the implement receiving carriers 12, 13, 14, 15. Therefore it would have been obvious to one having ordinary skill in the art of power drills to combine the drill accessory of Cowley with the implement receiving carriers of Carter in order to obtain a drill accessory that is rotationally balanced during use.

19. Claims 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley in view of Carter and further in view of Holland (U.S. Patent 6,053,675).

20. Per claim 12, the modified drill accessory of Cowley discloses the invention as claimed, as Cowley further discloses each implement receiving carrier 5 is slidably (slidable simultaneously with implement receiving collar 3) and pivotally secured in a slot recess (slot defined as area between adjacent implement receiving carriers 5) of said implement receiving collar 3 and is slidably and pivotally moved between said storage position and said in use position.

21. Per claim 13, the modified drill accessory of Cowley discloses the invention as claimed, as Cowley further discloses a plurality of implements 9 each of which is receivable in any of said implement receiving carriers 5.

22. Per claim 14, the modified drill accessory of Cowley discloses the invention substantially as claimed, except Cowley does not disclose each implement includes a spring loaded cam means for releasable securement in any of said implement receiving carriers.

23. Carter teaches the use of a spring 26 for the purpose of providing releasable securement in any of said implement receiving carriers 12, 13, 14, 15. Therefore it would have been obvious to one having ordinary skill in the art of power drills to combine the drill accessory of Cowley with the spring of Carter in order to have implements that are more easily removed from the drill accessory.

24. Per claim 15, the modified drill accessory of Cowley discloses the invention as claimed, as Cowley further discloses each implement 9 received in any of said implement receiving carriers 5 is slidably displaceable within the implement receiving carrier 5.

25. Per claim 16, the modified drill accessory of Cowley discloses the invention as claimed, as Cowley further discloses each implement receiving carrier 5 has an "L" shape configuration including a distal end with an implement receiving port 7, and a pivot securement end opposite said distal end, said pivot securement end slidably attached to said implement receiving collar 3 (slidable simultaneously with implement receiving collar 3).

26. Per claim 17, the modified drill accessory of Cowley discloses the invention as claimed, as Cowley further discloses each implement receiving carrier 5 has an elongate shank 6 connecting said distal end and said pivot securement end and said distal end has an outwardly extending flange which includes said implement receiving port 7.

27. Per claim 18, the modified drill accessory of Cowley discloses the invention as claimed, as Cowley further discloses said outwardly extending flange in said in use position of said implement receiving carrier 5 aligns said implement receiving port 7 with said implement receiving socket 16 of said drive shaft.

28. Per claim 19, the modified drill accessory of Cowley discloses the invention as claimed, as Cowley further discloses said outwardly extending flange of each implement receiving carrier 5 in said storage position thereof positions said outwardly extending flange generally perpendicular to a circular side of said implement receiving collar 3 and immediately adjacent thereto. In the alternative, it would have been obvious to one of ordinary skill in the art to modify the storage location of the implement receiving carrier of Cowley to be perpendicular to the cylindrical side of the implement receiving carrier,

as this would only have required a modification to a temporary location of the implement receiving carrier.

29. Per claim 20, the modified drill accessory of Cowley discloses the invention substantially as claimed, except Cowley does not disclose the implement receiving collar to be longitudinally slidable on said elongate drive shaft between an implement retaining position and an implement release position, said implement receiving collar including an associated spring bias member for urging said implement receiving collar to said implement retaining position. Holland teaches an implement receiving collar 30 that is longitudinally slidable on an elongate drive shaft 20 between an implement retaining position and an implement release position, said implement receiving collar 30 including an associated spring bias member 60 for the purpose of urging said implement receiving collar 30 to said implement retaining position. Therefore it would have been obvious to one having ordinary skill in the art of power drills to have modified the drill accessory of Cowley with the slidable implement receiving collar and spring bias member of Holland in order to obtain a multi-tool drill accessory with a quick release tool holder.

30. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley in view of Carter and Holland and further in view of Xu (Taiwanese Patent 326734).

31. Per claims 21-23, the modified drill accessory of Cowley discloses the invention substantially as claimed, except Cowley does not disclose a spring biased latch which is received in a side port of said drive shaft to protrude into said implement receiving

socket and rotates with said drive shaft, said implement receiving collar cooperating with said implement receiving socket to retain said latch partially protruding into said implement receiving socket when said implement receiving collar is in said implement retaining position. Cowley also does not disclose each implement including a retaining groove at one end thereof for receiving said spring biased latch to releasably lock the implement when received in said drive shaft socket, or wherein each implement inserted in said drive shaft socket cams said spring biased latch outwardly against the bias of said spring biased latch and locks said implement against withdrawal from said socket while said implement receiving collar is in said implement retaining position.

32. Per claim 21, Xu teaches the use of a spring biased latch 30 which is received in a side port of a drive shaft 10 to protrude into an implement receiving socket 111 and rotates with said drive shaft 10, with an implement receiving collar 40 cooperating with said implement receiving socket 111 to retain said latch partially protruding into said implement receiving socket when the implement receiving collar 40 is in said implement retaining position, for the purpose of holding the implement B in the working position during rotation of the drill. Therefore it would have been obvious to one having ordinary skill in the art of power drills to have modified the drill accessory of Cowley with the spring biased latch of Xu in order to provide a drill accessory with an implement quick release mechanism.

33. Per claim 22, Xu teaches the implement B to include a retaining groove a1 at one end thereof for the purpose of receiving said spring biased latch 30 to releasably lock the implement B when received in said drive shaft socket 111. Therefore it would have

been obvious to one having ordinary skill in the art of power drills to have modified the drill accessory of Cowley with the implement retaining groove of Xu in order to provide a drill accessory with an implement specially designed to work with the implement quick release mechanism.

34. Per claim 23, Xu teaches the implement B, when inserted in said drive shaft socket 111, cams said spring biased latch 30 outwardly against the bias of said spring biased latch 30 for the purpose of locking said implement B against withdrawal from said socket 111 while said implement receiving collar 40 is in the implement retaining position. Therefore it would have been obvious to one having ordinary skill in the art of power drills to have modified the drill accessory of Cowley with the spring biased latch of Xu in order to provide a drill accessory with an implement and spring biased latch specially designed to create an implement quick release mechanism.

35. Claims 24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley in view of Carter and further in view of Xu.

36. Per claims 24 and 26-28, the modified drill accessory of Cowley discloses the invention substantially as claimed, except Cowley does not disclose a spring biased latch associated with said implement receiving socket for releasably retaining an implement in said drive socket, said spring biased latch including a coil spring having a segment thereof displaceable into and out of said implement receiving socket to form a releasable latch with a retaining groove of an implement received in a drive position within said drive socket. Cowley also does not disclose said segment of said coil spring to be an end segment which extends radially inwardly of the diameter of said coil spring,

or said end segment to be received in an angled groove of said drive socket and biased to a retaining position extending into said drive socket and displaceable to a release position by movement along said angled groove to a position releasing an implement received in said drive socket, or said end segment being an inwardly bent section which is received in a slot of said drive shaft and serves to retain said spring biased latch captured on said drive shaft.

37. Per claim 24, Xu teaches a spring biased latch 30 associated with said implement receiving socket 111 for releasably retaining an implement B in said drive socket 111, said spring biased latch 30 including a coil spring 30 having a segment 31 thereof displaceable into and out of said implement receiving socket 111 for the purpose of forming a releasable latch with a retaining groove of an implement B received in a drive position within said drive socket 111. Therefore it would have been obvious to one having ordinary skill in the art of power drills to have modified the drill accessory of Cowley with the coil spring of Xu in order to provide a drill accessory with an improved implement quick release mechanism.

38. Per claim 26, Xu teaches said segment 31 of said coil spring 30 is an end segment which extends radially inwardly of the diameter of said coil spring for the purpose of latching to said implement receiving socket 111. Therefore it would have been obvious to one having ordinary skill in the art of power drills to have modified the drill accessory of Cowley with the coil spring of Xu in order to provide a drill accessory with an improved implement quick release mechanism.

39. Per claim 27, Xu teaches said end segment 31 is received in an angled groove 112 of said drive socket 111 and is biased to a retaining position extending into said drive socket 111 and is displaceable to a release position by movement along said angled groove 112 for the purpose of releasing an implement B received in said drive socket 111. Therefore it would have been obvious to one having ordinary skill in the art of power drills to have modified the drill accessory of Cowley with the coil spring of Xu in order to provide a drill accessory with an improved implement quick release mechanism.

40. Per claim 28, Xu teaches said end segment 31 to be an inwardly bent section which is received in a slot 112 of said drive shaft 10 for the purpose of retaining said spring biased latch 30 on said drive shaft 10. Therefore it would have been obvious to one having ordinary skill in the art of power drills to have modified the drill accessory of Cowley with the coil spring of Xu in order to provide a drill accessory with an implement quick release mechanism.

Allowable Subject Matter

41. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

16. Applicant's arguments with respect to claims 1-3, 6 and 11 have been considered but are moot in view of the new ground(s) of rejection.

17. Applicant's arguments stating that Cowley's socket 7 is part of the holder 5 and is not part of the drive shaft 1, and that the drive shaft does not have an implement receiving socket as required according to the present claims, has been fully considered but is not persuasive. The current wording of claims 1 and 11 require that the elongate drive shaft have an implement receiving socket at one end thereof. This wording does not require that the implement receiving socket be an integral part of the elongate drive shaft, and therefore the implement receiving socket of Cowley meets this requirement.

18. For the reasons as set forth above, the rejections are maintained.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric A. Gates whose telephone number is 571-272-5498. The examiner can normally be reached on Monday-Thursday 7:45-6:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EAG
10 January 2006

BOYER D. ASHLEY
SUPERVISORY PATENT EXAMINER